2:319

6.8000 (also 1031 1159)

5/112/60/000/010/004/004 A052/A101

AUTHORS:

Plotkin, Ye.I.; Karateyev, B.V.; Yudina, O.M.

TITLE:

"Ionophone"-type electroacoustic converter

PERIODICAL: Referativnyy zhurnal. Elektrotekhnika, 1960, no. 10. 350, abstract 6.9539. (Tr. Nauchno-tekhn, konferentsii Leningr, elektrotekh, iu-tekh svyazi, no. 3, Leningrad, 1959, 39 - 46)

The first test model of the ionophone, developed by the Leningrad TEXT: Electrotechnical Institute of Communication, is described as well as the principle of the converter and a detailed basic circuit of the h-f generator, the main power supply element of the converter. It is pointed out that in its present form the ionophone differs considerably from the initial model proposed by Z. Kleyn and can be considered as a sufficiently promising type of an inertialess electroacoustic converter. The device can be tuned in such a way that noises are practically not perceived. Amplitude and frequency characteristics of the ionophone are given. It is possible to use the ionophone in 2-band acoustic units for reproducing the upper audio frequency sub-band and in single-band acoustic

Card 1/2

"Ionophone"-type electroacoustic converter Systems as an additional h-f emitter.

[Abstracter's note: Complete translation]

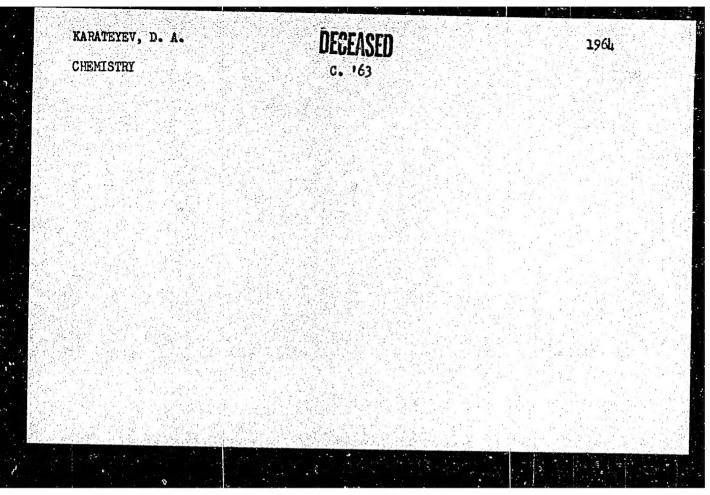
20319

S/112/60/000/010/004/004

A052/A101

N.Ya K.

[Abstracter's note: Complete translation]



# Investigating reduction coefficients of moments of inertia in the cross section of a ship's hull during over-all vibration. Sudostroenie 24 no.11:16-20 N '58. (Ships--Vibration)

FRENKEL!, Mark Isaakovich; STRAKHOVICH, K.I., prof., retsenzent; KARATEYEV, S.N., inzh., red.; SIMONOVSKIY, N.Z., red.izd-va; DUDUSOVA, G.A., red.izd-va; SPERANSKAYA, O.V., tekhn.red.

[Piston compressors; theory, constructions, and fundamentals of design] Porshnevye kompressory; teoriis, konstruktsii i osnovy proektirovaniis. Izd.2., perer. i dop. Moskva, Gos.nauchno-tekhn. izd-vo mashinostroit.lit-ry, 1960. 654 p. (MIRA 13:11) (Compressors)

# KARATEYEV, V.N.

NAUMOV, V.I.; SIDOROV, N.G.; SAKHAROV, V.K. [deceased]; VELETSKIY, G.A., inzhener, retsenzent; KARATEVEV, V.N., inzhener, retsenzent; HAZAROV, D.M., inzhener, retsenzent; TSVETHIKOV, V.I., kandidat tekhnicheskikh nauk, redaktor; KOCHUROV, N.I., inzhener, redaktor; FETISOV, F.I., inzhener, redaktor; SOKOLOVA, L.V., tekhnicheskiy redaktor

[Operation, technical maintenance and repair of automobiles; reference materials] Ekspluatatsiia, tekhnicheskoe obsluzhivanie i rement avtomobilei; spravochnye materialy. Izd. 2-e, perer. i dop. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1954, 495 p. [Microfilm] (Automobiles)

NAUMOV, Vasiliy Ivanovich; SIDOROV, Nikolay Grigor'yevich; SAKHAROV, Vladimir Konstantinovich [deceased]; BELETSKIY, G.A., inzh., retsenzent; KARATEYEV, V.N., inzh., retsenzent; NAZAROV, D.M., inzh., retsenzent; KOCHUROV, N.I., dotsent, kand.tekhn.nauk, red.; TSVETNIKOV, V.I., dotsent, kand.tekhn.nauk; GOFMAN, Ye.K., red. izd-va; SOKOLOVA, V.L., tekhn.red.

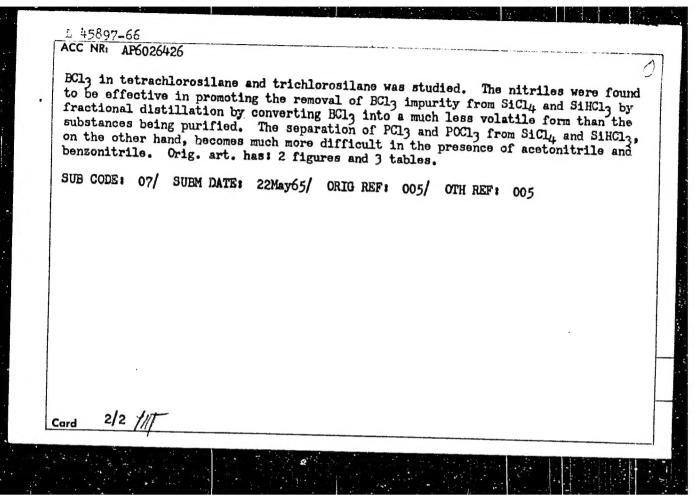
[Operation, technical maintenence, and repair of automobiles; reference materials] Ekspluatatsiia, tekhnicheskoe obsluzhivanie i remont avtomobilei; spravochnye materialy. Izde3, perer. i dop. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1959. 447 p.

(Automobiles) (MIEA 12:5)

### "APPROVED FOR RELEASE: 06/13/2000

### CIA-RDP86-00513R000720620016-7

L 45897-66 EVT(m)/EVP(j)/T DS/JW/RM ACC NR: AP6026426 (A)SOURCE CODE: UR/0079/66/036/005/0773/0776 AUTHOR: Lapidus, I. I.; Nisel'son, L. A.; Karateyeva, A. A. 40 ORG: State Scientific Research and Planning Institute of the Rare Metal Industry "Giredmet" (Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy institut redko-metallicheskoy promyshlennosti "Giredmet") TITLE: Liquid-vapor equilibrium in systems formed by trichlorosilane and tetrachlorosilane with certain nitriles SOURCE: Zhurnal obshchey khimii, v. 36, no. 5, 1966, 773-776 TOPIC TAGS: phase equilibrium, silane, acetonitrile, organic nitrile compound ABSTRACT: In a study of the liquid-vapor equilibrium in systems formed by trichlorosilane and tetrachlorosilane with acetonitrile and benzonitrile, the experimental relationships between the boiling points and pressures were treated by the least-squares method and represented by equations of the form  $\log P = A - \frac{B}{T}$ . From the experimental data, the activity coefficients, composition of the equilibrium vapor, relative volatility, and molar heat of vaporization were calculated as functions of the composition of the liquid phase. Positive deviations from ideality were established in the systems tetrachlorosilane-acetonitrile and trichlorosilane-acetonitrile. The effect of adding 2% acetonitrile or benzonitrile on the relative volatility of PCl3, POCl3, and 1/2 Card UDC: 541.127



ACC NR: AP6026151 SOURCE CODE: UR/0076/66/040/007/1630/1631

AUTHOR: Lapidus, I. I.; Misel'son, L. A.; Karateyeva, A. A.

ORG: State Scientific Research Institute of the Rare Metal Industry (Gosudarstvennyy nauchno-issledovatel skiy institut redkometallicheskoy promyshlennosti)

TITLE: Liquid-vapor equilibrium in the SiHCl3-PCl3 system

SOURCE: Zhurnal fizicheskoy khimii, v. 40, no. 7, 1966, 1630-1631

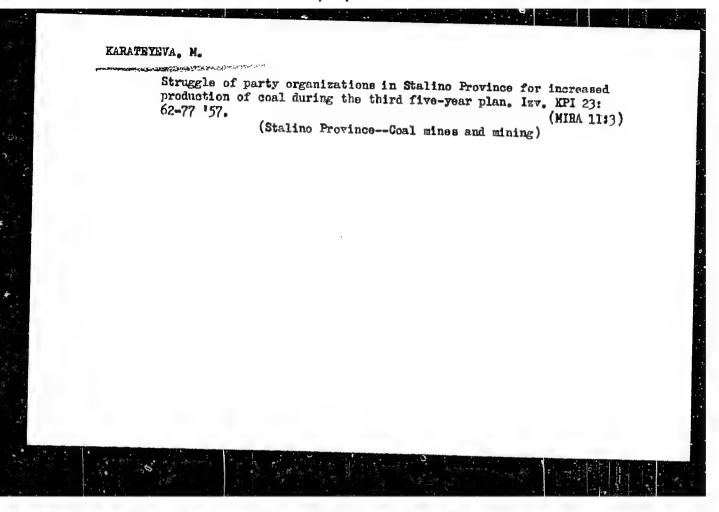
TOPIC TAGS: silane, phosphorus chloride, phase equilibrium, vapor pressure

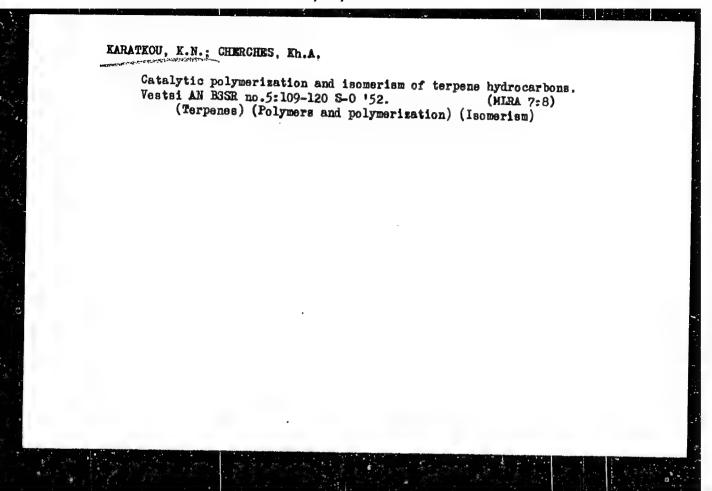
ABSTRACT: The relationships between the boiling points and the pressure were determined for mixtures of trichlorosilane and phosphorus trichloride. The data obtained were treated by the least-squares method and are represented by equations of the form log p = A - B/T. From this experimentally established dependence of the boiling points on the composition at 760 mm Hg, the activity coefficients of the components, composition of the equilibrium vapor, and relative volatility were calculated as functions of the composition of the liquid phase. Slight negative deviations from Raoult's law rus trichloride to pure trichlorosilane, the relative volatility increases from 2.9 to 4.6. Orig. art. has: 2 tables.

SUB CODE: 07/ SUBM DATE: 23Jul65/ ORIG REF: 004/ OTH REF: 005

Card 1/1 mis

UDC: 541.123





MAJEWSKI, Wojciech, mgr inz.; KARATNICKA, Elzbieta, mgr inz.

Velocity distribution in open channels and determination of the  $\propto$  and  $\beta$  coefficients. Gosp wedna 25 no.2:79-82 F 165,

1. Institute of Hydraulic Engineering, Gdansk, of the Polish Academy of Sciences (for Majewski) 2. Institute of Soil Improvement and Grasslands, Warsaw (for Karatnicka).

### CIA-RDP86-00513R000720620016-7 "APPROVED FOR RELEASE: 06/13/2000

POLAND / Chemical Technology, Chemical Products and Their Application. Carrohydrates and Their Processing.

H-26

Abs Jour

: Rof Zhur - Khimiya, No 5, 1959, No. 17159

Author

: Peretjatkowicz, B.; Karatnicki, A.

Inst

: Not givon

Title

: Results of Investigations of Sugar Boet Storage

Orig Pub

: Gaz. cukrown., 1958, 40, No 3, 87-90

Abstract

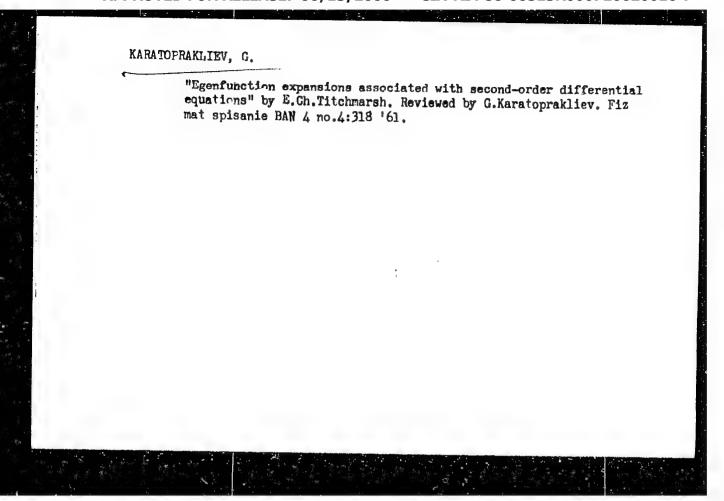
: Presented are conclusions of many years of investigations portaining to the storage of beets in various sections of Poland. The investigation covers effects of the climatic conditions, various methods of treating beets (spraying with milk of lime, ventilation of storage, covering with earth and mats, liming of storage bins). Feasibility of storage in large bins, covered on the sides with soil and white-washed at top, has been established. -- Ya. Shteinlorg

Card 1/1

H-90

# KARATOPRAKLIEV, G.

E. C. Titchmarsh's Rigenfunction Expansions Associated with Second Order Differential Equations; a beek review. Fiz mat spisanie BAN 4 no.3:239-240 61.



# KARATOPRAKLIEV, G.

Some notes on the differential equations of J. Halm. Izv Mat inst BAN 5 no.1:65-71 '61.

16,3400

35832 \$/044/62/000/002/020/092 0111/0333

AUTHOR:

Karatoprakliyev, G.

TITLE:

Some conditions under which the Riccati equation can be reduced to a linear homogeneous equation of second order

with constant coefficients

FERIODICAL:

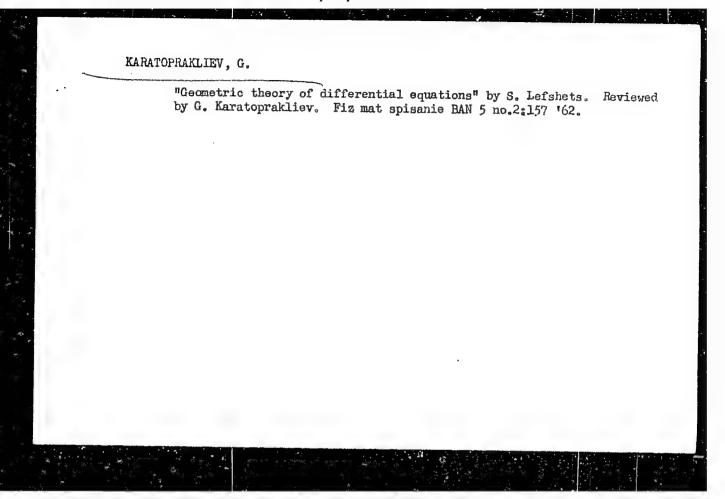
Referativny; shurnal, Matematika, no. 2, 1962, 43,

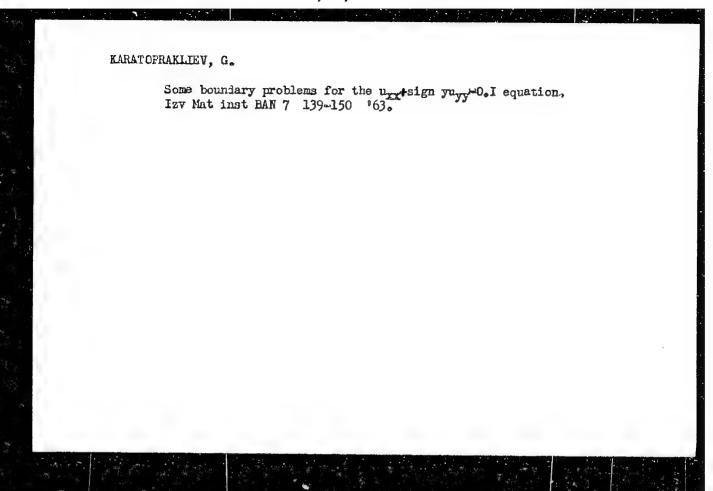
abstract 2B1S6. ("Godishnik Mash.-elektrotekhn. in-t", 199

(1960), 6, no. 1, 61-68)

[Abstructer's note: Complete translation.]

Card 1/1)





AFFTC/IJP(C) ENT(d)/FCC(w)/BDS L 16961-63 \$/020/63/149/006/001/027 Karatoprakliyev, G. AUTHOR: Certain boundary-value problems for the equation uxx + sign y uyy = 0 TITLE: PERIODICAL: Akademiya nauk SSSR. Doklady. vol. 149, no. 6, 1253-1256 /963 The author discusses two boundary-value problems of type T1 for the TEXT: Lawrent'yev-Bitsadze equation  $u_{xx} + \operatorname{sign} y u_{yy} > 0$  (1) under the following conditions: D is a simply connected region in the xy plane and is bounded by a Jordan curve o with endpoints at A(-1,0), B(1,0) that is in the upper half plane and by characteristics AC; y=-x-1 and BC: y=x-1 leaving the points C(0,1). Let  $E_k$   $(e_k,0)$ ,  $k=1,\ldots,n,-1 < a_i < \ldots < a_n < 1$  be given points on segment AB. The points  $A_k \left[\frac{1}{2}(a_k-1), -\frac{1}{2}(a_k+1)\right]$  and  $B_k \left[\frac{1}{2}(a_k+1), \frac{1}{2}(a_k-1)\right], k=0,1,\ldots,n+1$   $(a_0=1)$ -1,  $a_{n+1}=1$ ) lie on characteristics AC and BC, repectively. We let  $E_{ik}=1^{i}/2$  ( $a_i+a_k$ ).  $\frac{1}{2}(a_1-a_2)$ , be the point at which characteristics  $E_1B_1$  and  $E_kA_k$  ( $E_0=A$ ,  $E_{n+1}=B$ ,  $E_{0k}=A_2$ ).  $E_{k,n+1} = B_k$ , i < k,  $i = 0, 1, \dots, n$ ;  $k = 1, \dots, n + 1$  intersect. We denote the elliptic and hyperbolic parts of mixed domain D by D, and D, respectively. Card 1/32

L 16961-63

Certain boundary-value problems...

S/020/63/149/006/001/027

Problem  $T_1$ : Find a function u(x,y) with the following properties:1) u(x,y) is a solution to equation (1) everywhere in D except at points on segment AB, the real axis, and characteristics  $E_k A_k$  and  $E_k B_k$ ; 2) u(x,y) is continuous in the closed region  $\overline{D}$ ; 3) partial derivatives  $u_x$  and  $u_y$  are continuous at all points on segment AB except perhaps at the points  $E_k$ ,  $k=0,1,\ldots,n+1$ , where  $u_x$  and  $u_y$  may become equal to an infinity of order less than one; 4) u(x,y) takes the following values:  $u=\emptyset$  on O;  $u=\emptyset$  or  $E_kE_{k-1}$ , k for odd x;  $u=\emptyset$  on  $E_{k-1}E_{k-1}$ , k for even k; where  $\emptyset$  is continuous, while the  $\psi_k(x)$ ,  $k=1,\ldots,n+1$  are twice differentiable functions whose second derivatives satisfy the Holder condition, so that  $u_{k-1}(a_{2k-1})=\psi_{k}(a_{2k-1})$ ,  $k=1,2,\ldots$  (the condition  $\psi_{k+1}(1)=\varphi(1)$  should also be satisfied when n=2m).

The author proves the solution of this problem to be unique, and then constructs it. A second problem of essentially the same type is also studied in a similar manner.

Association: Mathematics Institute and Computer Center, Bulgarian Academy of Sciences

Card 2/10

HIS/EWT (d)/FCC(w) IJP(C)/JXT(IJP)/DE AFFTC AP3000:287 8/0020/63/150/001/0023/0025 AUTHOR: Karatopreklivev, C. TIME: Modified T sub 1, problem for the equation u sub xx + sig yn u sub yy SOURCE: AN SSSR. Doklady, v. 150, no. 1, 1963, 23-25 TOPIC TAGS: none ABSTRACT: Let D be a simply-connected domain in the xy plane whose boundary is σ + AC + BC, where σ is a Jordan curve situated in the upper half-plane γ≥0 with end points at A = (-1,0) and B = (1,0), AC is the straight line segment y = -x-1, and BC is the straight line segment y = x-1. For each k = 1, 2, ....n, let  $E_k = (a_k, 0)$  where  $-1 < a_1 < ... < a_n < 1$ ,  $A_k = [1/2(a_k-1)]$ ,  $-1/2(a_1 + 1)$ , and  $B_1 = [1/2(a_1 + 1), 1/2(a_1 - 1)] (a_0 = -1, a_{n+1} = 1)$ . The following boundary value problem is considered: to determine a solution u(x,y) of the equation  $u_{jot} + sig y ua_{jo} = 0$  in D minus the segment AB of the x-exis joining A and B, the function having continuous first partial derivatives except possibly at the point F, and satisfying the boundary condition Card 1/2

ACCESSION MR: AP3000287  $u = \varphi$  on  $\sigma$ ,  $u = \Psi_k$  on  $A_k A_{k+1}$ ,  $u = \Psi_k + \alpha_k$  on  $B_k B_{k+1}$ , where  $\Psi_0(-1) = \varpi(-1)$  and  $\alpha_k$  are real numbers Aleksandrov for valuable discussion. Author expresses gratitude to v. v.

ASSOCIATION.

ASSOCIATION: Matematicheskiy institut s vychislitel nym tsentrom Bolgarskoy
Akademii nauk (Mathematical Institute and Computer Center of the Bulgarian Academy
of Sciences)

SUBMITTED: 060ct62

DATE ACQ: 10Jun 63

BNC

SUB CODE: MM

NO REF SOV: 006

OTHER: OOO

[ANNOTATION: The equation under investigation should read

 $u_{xx}$  4sign y  $u_{yy} = 0$ 

where sign y=1 (often abbreviated sgn y=1) for y>o and sign y= -1 for y<o. See M. A. Lavrent yev, A. V. Bitsadze, D A N, 70,

Card 2/2

The second equation could not be located in the original

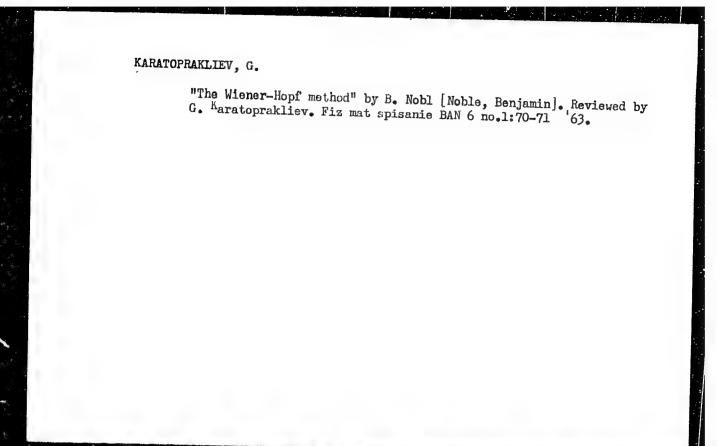
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CIA-RDP86-00513R000720620016-7"

# KARATOPRAKLIYEV, G.

Generalization of the T problem for the equation  $u_{XX} + sign yu_{yy} = 0$ . Dokl. AN SSSR 151 nc.6:1271-1273 Ag '63. (MIRA 16:10)

1. Matematicheskiy institut s vychislitel'nym tsentrom Bolgarskoy Akademii nauk. Predstavleno akademikom M.A.Lavrent'yevym.



APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000720620016-7"

Some boundary problems for the equation until your your t.2. Jav Mat last BAN 6:95-307 164.

1. Submitted September 11, 1963.

L.803-65 SWZ(a) LDF(c)/RSD(ab)/ASD(a)-5/RARM(t)/APVL.

ACCESSION NR: Absolvated?

AUTHOR: Raratoprukliyev, 3.

TITLE: Concerning one generalization of the Tricomi problem (b)

SDURCE: AN SSSR: Doklady\*, v. 158, no. 2, 1964, 271-274

TOPIC: TAGS! partial differential ephation, second order differential parabolic differential equation, boundary condition, uniqueness theorem, existence theorem

ABSTRACT: The boundary problem was considered for the equation yu. + u = 0, (1)

which is a generalization of the Tricomi problem (Mem. Lince), Ber 5, 14, fast, 7, 13: 1923; For the case when the sought function u(x, y) and its partial darivative u(x, y) have discontinuities of the first kind on the parabolic-degeneracy line. The uniqueness of Cord 1/2

L 8903-65

Accession NR: AP4045617

the solution of the problem is demonstrated by showing that the solution u(x, y) has a positive maximum and a negative minimum in some closed domain. The existence is proved by demonstrating the possibility of determining a certain function  $v(x) = u_1(x) + 10$  in a class H\* on the segment [-1, 1]. Some particular cases when the existence can be proved in simpler fashion are noted. The author thanks A. V. Bitsacse for useful intents and for interest in the work. This report was presented by M. A. Lavrent'yev. (rig. art. has, 15 formulas.

ASSOCIATION: Mathematicheskiy institut a vy\*chislitel'nym tsentrom Bolgarskoy:Akademii naik; Sofiya (Mathematics Institute with Computation Center, Bulgarian Academy of Sciences)

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OTHER: 001

Cara 2/2

BULGARIA/Nuclear Physics - Installations and Instruments. C

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Abs Jour : Ref Zhur Fizika, No 2, 1960, 2786

increased. Results obtained indicate a strong influence of the anode adsorption. Thus, local heating of the anode by passage of direct current through it has led to a complete restoration of the initial working characteristics of the counters during cooling of the counter.

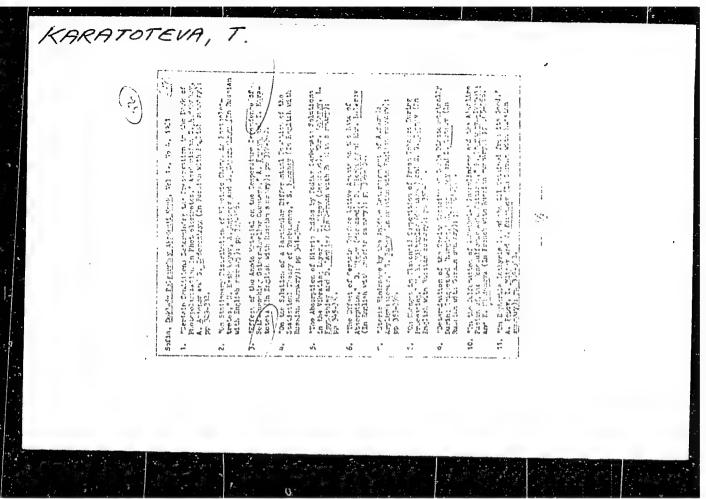
EXCERPTA MEDICA Sec. 17 Vol. 3/3 Public Health Mar. 57

931. KARATOTEVA T. Acad. of Med.. 'I. P. Pavlov', Plovdiv. \*Estimation of dust in the atmosphere by centrifugation (Russian text) TRAV.ACAD.MED. 'I. P. PAVLOV' 1956, 7/1952-'53 (311-318) Illus. 4 The centrifugation method is described and represented in pictures. The dust particles are collected on a glass plate and counted by microscope or by projection on a ruled screen. The calculation technique is given and the results discussed.



study was made of the temperature effect in counters of identical constructions, in which the ability of adsorption of the cathode and anode material was artificially

Card 1/2



\$\263/62/000/006/009/015 1008/1208

AUTHORS:

Peeva, A. and Karatoteva, T.

TITLE:

Temperature stable regions and ageing of self-quenched

G.M. counters

PERIODICAL:

Referativnyy zhurnal, otdel'nyy vypusk. 32. Izmeritel-naya tekhnika, no.6, 1962, 38, abstract 32.6.231. (Dokl. Bolg. AN, 1961, 14, no.2, 135-138)

TEXT: Measurements carried out by a number of researchers with counters (C) having the same geometry and gas-filling yielded strongly divergent results; for example, the lower limit of the temperature stable region varied between -3° and +9°C, and its upper limit between +60° and +100°C. One of the reasons for this divergence may be the difference in the methods of degassing of the electrodes and of decontamination of the gas-filling, which determine the adsorption capacity of the walls of C. Another reason may be that C was used before the experiment for different periods

Card 1/3

S/263/62/000/006/009/015 I008/I208

Temperature stable regions ...

of time, thus producing differences in the concentration of the quenching agent and hence differences in the temperature characteristics of C. Experiments were performed with specially prepared C of the same design and dimensions and with the same filling (argon + 10% of alcohol vapors). The stable temperature region of freshly prepared C was from -5° to +70°C. The lower limit constantly went up during the time of operation; it reached +10° after C recorded 10° pulses, +30° after 10¹4 pulses and so on. Apparently the dissociation products of the quenching agent settle on the inner surface of C, hence in order to restore the purity of the surfaces, the counter has to be heated. This assumption was verified experimentally: after recording 10¹5 pulses, i.e., after having used up all the molecules of the quenching agent, the C were partially restored by heating the anode (it was made from copper and its diameter was 0.2 mm) by a 0.5 amm current, or by general heating up to 70°C. It is assumed that on heating, a part of the dis-

Card 2/3

\$/263/62/000/006/009/015 I008/1208

Temperature stable regions ....

sociation products recombine and acquire anew quenching properties. Further ageing of C (above  $10^{16}$  pulses) brought about irreversible changes. There are 7 references.

[Abstracter's note: Complete translation.]

Card 3/3

PEEVA, A.; KARATOTEVA, T.

Effect of cathode material of G.M.counters on change in temperaturestable region in case of fatigue, Doklady BAN 17 no.10:889-892 '64.

1. Submitted July 12, 1964.

KARATOV, Mikhail Mikhaylovich, kand. geogr. nauk; LUNIN, B.A., red.;
KABIROV, I.V., tekhn. red.

[Frunze Province; brief sketch of its economic geography]
Frunzenskaia oblast'; kratkii ekonomiko-geograficheskii
ocherk. Frunze, Kirgizskoe gos. izd-vo, 1956. 157 p.
(MIRA 16:8)

(Frunze Provinqe--Economic geography)

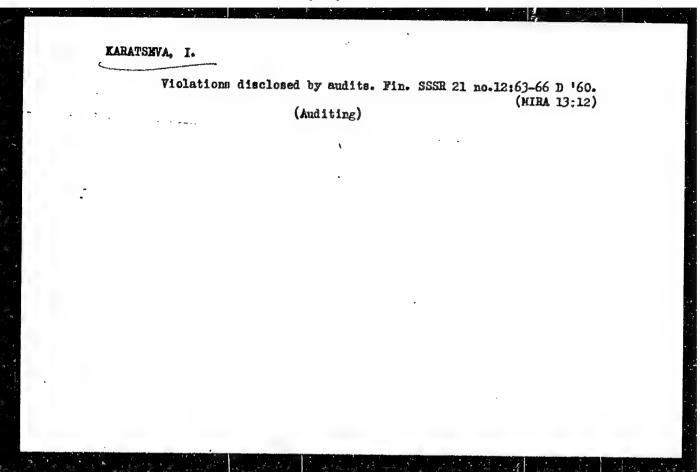
SOKOLOV, S.S. (Leningrad, Khersonskaya ul.,d.2/9,kv.37); TSAKADZE, L.O.; KARATOVA, V.A.

Transcutaneous catheterization of the heart cavities and aorta by the Seldinger technique. Vest.khir.90 no.2:52-57 F'63.

(MIRA 16:7)

1. Iz gospital'noy khirurgicheskoy kliniki (zav.- prof. F.G. Uglov) 1-go leningradskogo meditsinskogo instituta imeni Pavlova.

(CARDIAC CATHETERIZATION)



# Payments and compensation from the budget. Fin. SSSR 23 no.9:78-80 S '62. (MIRA 15:9) (Grain trade—Prices) (Oilseeds—Prices)

SOROKIN, Valentin Alekseyevich; SKVIRSKIY, Lev Grigor'yevich; KARATSEVA

Izetkhan Kaziyevna; SAMOYLOV, V., otv. red.; SHATROVA, T., red.

izd-va; TELEGINA, T., tekhn. red.

[Organization of auditing work on government revenue]Organizatiia revizionnoi raboty po gosudarstvennym dokhodam. Mcskva,

Gosfinizdat, 1962. 219 p. (MIRA 16:3)

(Revenue--Auditing and inspection)

PINTER, Jozsef, dr.; BALOGH, Ferenc, dr.; KARATSON, Andras, dr.; SZELESTEI, Tamas, dr.

The problem of the prevention of acute anuria with special reference to the use of mannitol. Orv. hetil. 106 no.34:1603-1605-22 Ag\*65.

Use of mannitol in the treatment of chronic uremia. Ibid.:1607-1609

1. Pecsi Orvostudomanyi Egyetem, Urologiai Klinika (igazgato: Balogn, Ferenc, dr.).

\$/042/60/015/03/02/002

AUTHOR: Karatsuba, A.A.

TITLE: Solution of a Problem of the Theory of Finite Automatons

PERIODICAL: Uspekhi matematicheskikh nauk, 1960, Vol.15, No.3, pp.157-159

TEXT: In two theorems the author gives the complete solution of a problem given by Moore (Mur) (Ref.1). He uses notions and notations of (Ref.1). Theorem 1: If S is an (n,m,p)-mashine with pairwise distinguishable states, then there exists a ramified experiment the length of which at most is (n-1)(n-2) + 1 and with the aid of which the state of S at the end of the experiment can be determined.

Theorem 2: There exists an (n,m,p)-mashine with pairwise distinguishable states so that the length of the shortest experiment which determines the state of the mashine at the end of the experiment, is equal to (n-1)(n-2) +

For the proof of theorem 1 the author constructs an experiment consisting of a successive groups of steps which satisfy the following condition and beginning of the k-th group the associated set of states has not more Card 1/2

21554

16,1000

8/020/61/137/003/002/030 C111/C222

AUTHOR:

Karatsuba, A.A.

TITLE:

Evaluations of some trigonometric sums of special form and their applications

PERIODICAL: Akademii nauk SSSR. Doklady, vol.137, no.3,1961, 513-514 The author considers the sum TEXT:

$$S = \sum_{x=1}^{N} e^{2\pi i \left(\frac{a_1 x}{p^n} + \frac{a_2 x^2}{p^{n-1}} + \dots + \frac{a_n x^n}{p}\right)}, \qquad (1)$$

where  $(a_y, y) = 1$ , y = 1, 2, ..., n. Theorem 1: Let S be given by (1),  $p \le N \le p^n$ ,  $\log p n^2 \log^3 n$ . Then

$$|s| \leq c_1 N^{\frac{1-\frac{C_2}{n^2}}{n}}$$

where c1, c2 are absolute constants.

Theorem 2: Let  $\chi(k)$  -- primitive character mod D =  $p^n$ , p -- prime Card 1/3

APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000720620016-7"

Evaluations of some trigonometric sums... 21554 S/020/61/13\( // 003/002/030 number > 2 and log p >>  $n^2 \log^3 n$ . Furthermore let  $S_N = \sum_{k=1}^N \Re(k)$ . Then it

$$|s_{N}| \le \begin{cases} p^{2} & \text{if } N < p^{2} \\ 1 - \frac{c_{4}}{n^{2}} & \text{if } p^{2} \le N \le p^{n} \end{cases},$$

where  $c_3, c_4$  are absolute constants. Theorem 3: Let  $n^2 \log^3 n \ll \log p \leqslant n^9$ ,  $\chi(k)$  -- primitive character mod D =  $p^n$ , p -- prime number >2. Then L(s,  $\chi$ ) has no zeros in the region

$$|s| < c_5$$
,  $6 > 1 - \frac{1}{\log \theta + 1}$ ,

where  $c_5$  is a constant.

Conclusion: Let  $\xi>0$  be arbitrarily small and  $n^2\log^3n\leqslant\log\,p\leqslant n^{2+\frac{\kappa}{2}}$ . Then L(s, x) has no zeros in Card 2/3

21554

Evaluations of some trigonometric sums... S/020/61/137/003/002/030 C111/C222

$$|s| < c_s$$
,  $6 > 1 - \frac{1}{\log^{2/3 + \varepsilon} D}$ .

The author mentions I.M. Vinogradov and A.G. Postnikov, and thanks N.M. Korobov for aid in the performance of the present paper. There are 4 Soviet-bloc references.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im.M.V.Lomonosova (Moscow State university im.M.V.Lomonosov)

PRESENTED: October 29, 1960, by I.M. Vinogradov, Academician

SUBMITTED: October 27, 1960

χ.

Card 3/3

Williams, A.A. (Contra)

Carry's problem for a system of equations. Nat. sbor. 55 no.1:209-220 S '61. (MIFEL 14:10)

Analog of Waring's problem. Vest. Mosk. un. Ser. 1: Mat., mekh.

17 no.1:38-46 Ja-F '62. (MIRA 15:1)

 Kafedra teorii chisel Moskovskogo universiteta. (Numbers, Theory of)

16,100

S/020/62/145/002/006/018 B112/B180

AUTHORS:

Karatsuba, A., and Ofman, Yu.

TITLE:

Multiplication of multi-digit numbers by automatic computers

PERIODICAL:

Akademiya nauk SSSR. Doklady, v. 145, no. 2, 1962, 293-294

TERT: The function  $y = d_5(x)$  describes the multiplication of two m-digit numbers. Its realization by dual automata is investigated. The following two theorems are derived: 1 (Ofman). For any s,  $1 \le s \le m$ , the function  $d_5$  can be realized by dual automata with the characteristics  $N = m^2/3$ ,  $T = \log_2 m$  ( $m \to \infty$ ). 2 (Karatsuba). The function  $d_5$  can be realized by dual automata with the characteristics  $N = m^2/3$ ,  $T = \log_2 m$ .

PRESENTED:

February 13, 1962, by A. N. Kolmogorov, Academician

SUBMITTED:

February 9, 1962

Card 1/1

1C

# KARATSUBA, A.A.

Distribution of fractional parts of polynomials of a special type. Vest.Mosk.un.Ser.l: Mat.,mekh. 17 no.3:34-39 My-Je (MIRA 15:7)

l. Kafedra teorii chisel Moskovskogo universiteta. (Polynomials)

KARATSUBA, A.; OFMAN, Yu.

Multiplication of multidigit numbers by automatic computers.

Dokl.AN SSSR 145 no.2:293-294 Jl \*62. (MIRA 15:7)

J. Predstavleno akademikom A.N.Kolmogorovym. (Electronic digital computers)

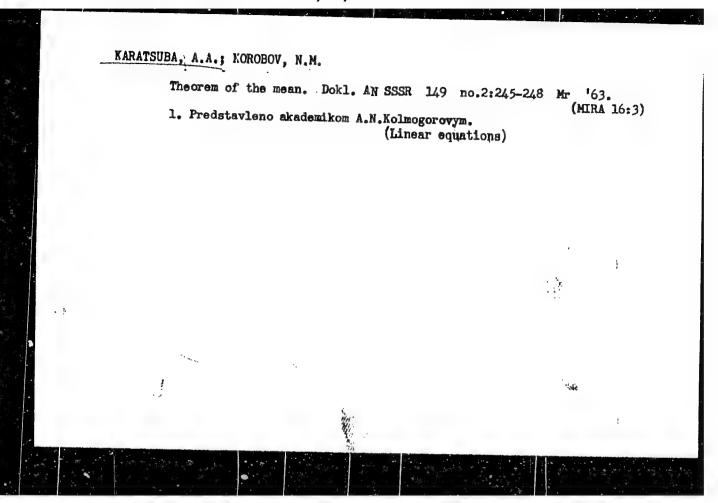
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[Elementary methods in the analytical theory of numbers]Elementarnye metody v analiticheskoi teorii chisel. Moskva, Fizmatgiz, 1962. 269 p. (MIRA 16:3)



Trigonometric sums of a special type and their applications.

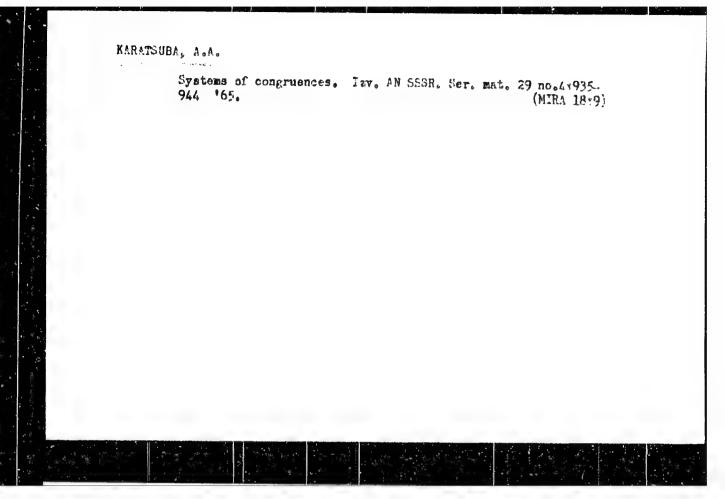
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Estimation of the number of solutions to certain equations. Dokl. AN SSSR 165 no.1:31-32 N . 65. (MIRA 18:10)

1. Submitted March 23, 1965.



KARATSUBA, A.A.

Congruence systems and Waring-type equations. Dokl. AN SSSR 165 no.2:274-276 N '65. (MIRA 18:11)

1. Submitted April 8, 1965.

### "APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000720620016-7

L 31225-66 EWT(d) IJP(c) ACC NR: AP6022807 SOURCE CODE: UR/0038/66/030/001/0183/0206 AUTHOR: Karatsuba, A. A. 24 B ORG: none TITLE: Theorems of the mean and complete trigonometric sums SOURCE: AN SSSR. Izvestiya. Seriya matematicheskaya, v. 30, no. 1, 1966, 183-206 TOPIC TAGS: trigonometry, asymptotic expansion, polynomial, number theory, series The article deals with the evaluations and asymptotic formulas for a number of solutions of certain comparison systems. Accurate evaluations of the quantities  $J_{k,n}$  and  $N_{k,n}$  are obtained chiefly as a function of such problems of the numbers theory as the evaluation of polynomial trigonometric sums and problems of the Waring, Hilbert-Kamke, and Tarry type. The calculations are based on I. M. VINOGRADOV's theory of reducing the evaluation of to a repeated application of an accurate evaluation of "one-. sided" systems of equations (VINOGRADOV, I.M., Izbrannyye Trudy, Moscow-Leningrad, AS USSR Press, 1952), as applied to the solutions of a definite system of comparisons, thus reducing the problem of evaluating  $N_k$  - which is a problem with an incomplete system of subtractions - to a problem with a complete system of subtractions. Orig. art. has: 29 formulas. [JrRS] SUB CODE: 12 / SUBM DATE: O8Jun65 / ORIG REF: OO8 / OTH REF: OO5 Card 1/1 BLG UDC: 0915

### "APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000720620016-7

ACC NR	AP7005420	Source	CODE;	UR/0020/66/169/001/0009/0011
AUTHOR:	Varatsuba, A. A.			11, 10110, 00, 202, 301, 3009, 0011

ORG: NOSCOW State University im. M. B. Lomonosov (Moskovskiy gosudarstvonnyy universitet)

TITLE: Asymptotic formulas for a certain class of trigonometric sums

SOURCE: AN SSSR. Doklady, v. 169, no. 1, 1966, 9-11 TOPIC TAGS: trigonometry, asymptotic solution

ABSTRACT: An asymptotic formula is obtained for a certain class of trigonometric sums which makes it possible to judge the behavior of the moduli of such sums when the summing interval is varied.

The formula is given in the form of a theorem, which is proved with the aid of a lemma. It is shown that the theorem can be extended to a broader class of trigonometric sums. This paper was presented by Academician I. M. Vinogradov on 22 October 1965. Orig. art. has: 2 formulas. JPRS: 38,695

SUB CODE: 12 / SUBM DATE: 180et65 / ORIG REF: 002

Card 1/1

# "APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000720620016-7

KARATSUBA, A. P., MALTSEV, E. I., NAGY, T., NAGY, J.,

"Identification of Particles in Xenon Bubble Chamber Without Magnetic Field"

paper presented at the Intl Conference on High Energy Physics, Rochester, N.Y. and/or Berkly California, 25 Aug - 16 Sep 1960.

BORONNIKOV, A.; CHEBOTAREV, V.; KARATSUBA, M.; KOLTASHEV, G.

State Bank, economic problems and public partial pation. Den. 1 kred. 20 no.10:18-29 0 162. (MIRA 15:12)

1. Upravlyayushchiy Smol'ninskim otdeleniyem Gosbanka Leningrada.
(for Boronnikov). 2. Upravlyayushchiy Moskvoretskim otdeleniyem
Gosbanka Moskvy (for Chebotarev). 3. Upravlyayushchiy Apsheronskim
otdeleniyem Gosbanka Krasnodarskogo kraya (for Karatsuba). 4. Zamestitel' upravlyayushchego Sverdlovskoy kontorov Gosbanka (for Koltashev).
(Banks and banking) (Industrial management)

KARATSUKOV, Sultan Aliyevich; KOROTKIKH, Aleksey Vasil'yevich; BALKAROV, K.Sh., red.

[Laboratory control in farm dairies and milk receiving stations; manual for laboratory workers of farm dairies, for the inspectors of state and collective farm administrations, and laboratory workers of creameries and cheese factories] Laboratornyi kontrol' na prifermskikh molochnykh i punktakh priemki moloka; posobie dlia laborantov prifermskikh molochnykh inspektorov kolkhozno-sovkhoznykh upravlenii i laborantov maslosyrozavodov. Nal'chik, Kabardino-Balkarskoe knizhnoe izd-vo, 1963. 49 p.

(MIRA 17:9)

ACC NR: AP7001335

SOURCE CODE: UR/0428/66/000/004/0106/0109

AUTHOR: Sirota, N. N.; Brzhezinskiy, V. A.; Dyukov, V. G.; Karatsyuba,

A. P.; Korshunov, F. P.; Lezzhov, Yu. F.; Chernyshev, A. A.

ORG: none

TITLE: Investigation of the effects of reactor radiation on the structure and parameters of silicon p-n junctions [Papers presented at the First Conference on Radiation Solid State Physics held on 8 September 1965 in Kiev]

SOURCE: AN BSSR. Vestsi. Seryya fizika-matematychnykh navuk, no. 4, 1966, 106-109

TOPIC TAGS: silicon, silicon semiconductor, neutron radiation, micrograph, pn junction, pn silicon

ABSTRACT: An investigation was made of the influence of the gamma neutron radiation of a reactor on changes in the structure and electrophysical parameters of p-n junctions, prepared by the diffusion method on n-type silicon with specific resistances of 2, 10, and 250 ohm • cm. The samples were irradiated in the

Card 1/2

ACC NRI AP7001335

vertical channel of a reactor of the AN BSSR. It was found that radiation causes considerable changes in the volt-ampere characteristics of silicon diffusion p-n junctions. These changes increase with the resistance of the original silicon base from which the p-n junction is prepared. Radiation (1.10<sup>15</sup> n/cm<sup>2</sup>) decreases the barrier capacity of the p-n junction and its dependence on the reverse voltage virtually disappears. The electron micrograph of the p-n junction, shifted on a bias of 30 v, showed no changes in the shape, location, and width of the p-n junction during this shift (after radiation). The width of the p-n junction after exposure was found to be independent of the bias voltage. It was possible to observe a drop of the direct voltage in the diode base having an initial specific resistance of 10 and 250 ohm · cm. It was also found that isochronous annealing at maximum of 350 C restores the direct branch of the volt-ampere characteristics of the p-n junction. Orig. art. has: 4 figures. [WA-095]

SUB CODE: 20/SUMB DATE: 25Jun66/ORIG REF: 003/OTH REF: 002/

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KARATUE P.N. HERE

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1. Vsesoyuznyy institut shivotnovodstva,
(Karakul sheep--Watering) (Hides and skins)

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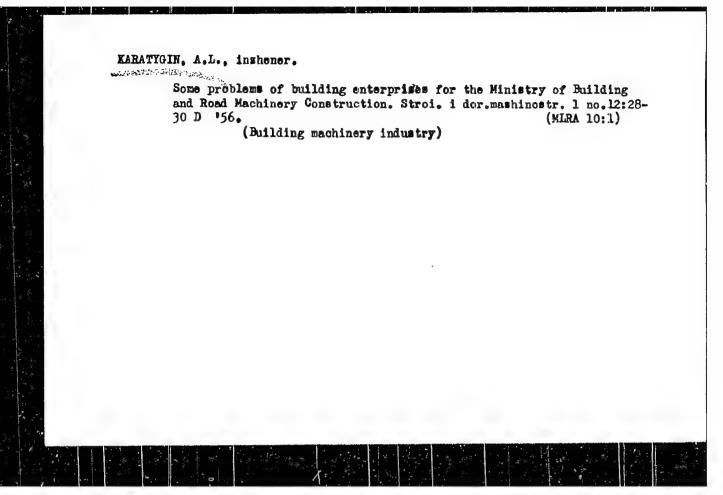
Methods for short-time tests of metals of elevated deformation rates. Zav. lab. 30 no.5:592-595 464. (MIRA 17:5)

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KARATUYEV, G.A., red.; KHAVINSON, Yu.I., red.

[Manual for a master tapper] Rukovodstvo masteru podsochki. Irkutsk, Irkutskoe knizhnoe izd-vo, 1962. 140 p. (MIRA 17:5)

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Review of the foreign periodicals. Vest.mash.27 no.3:77-80 147. (Bibliography--Machinery) (MIRA 9:4)

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147. (Bibliography-Machinery) (MIRA 9:4)

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Review of foreign periodicals. Vest.mash.27 no.12:98-100 D 147.
(Bibliography--Machinery) (MIRA 9:4)

KARATYGIN, A. M. DCCENT

PA 2/40T49

UBSE/Engineering
Tools, Cutting
Machinery - Construction

Jul. 48

"Scientific and Technical Session of the Committee for Sharpening and Finishing of Cutting Tools," Docent A. M. Karatygin, Cand Tech Sci, 1 p

"Vest Mashinostroy" No 7

Presents results of Feb 48 session of subject committee to determine better methods for sharpening and finishing cutting tools as a means to increase the life of the tools and machinery production.

2/49T49

APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000720620016-7"

KARATYGIN, A. M. and KORSHUNOV, B. S.

Khimiko-mekhanicheskii sposob obrabotki tverdykh splavov. (Vestn. Mash., 1950, No. 12, p. 30-34)

DLC: TN4.V4

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Lapping of hard-alloy tools with the B<sub>1</sub> new abrasive. Vest.mash. 33 no.11: (MERA 6:12) (Grinding and polishing)

KARATYGIN, A. M.

KARATYGIN, A.M., kandidat tekhnicheakikh nauk, dotsent; KORSHUNOV, B.S., kandidat tekhnicheakikh nauk; PRUMIN, Yu.L., inzhener, retsenzent; ZUSMAHOVSKIY, M.K., inzhener, retsenzent; ZATULOVSKIY, D.I., kandidat tekhnicheakikh nauk, redaktor.

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KARATYGIN, A.M. PHTYGIN

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[Friction and wear in metal cutting] Trenie i iznos pri rezanii metallov. Pod obshchei red. V.I.Dikushina. Moskva, Gos.nauchno-tekhn. izd.-vo mashinostroitel'noi lit-ry, 1955. 140 p. (MLRA 9:1)

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(Metal cutting)

KARATYEIN, A.M. USSR/ Miscelleneous - Conferences 1/1 Pub. 103 - 17/19 /Zard Authors . Karatygin, A. M. Title t Results of the conference on high productive metal cutting Pariodical : Stan. i instr. 2. 37 - 38. Feb 1955 Abstract ! Minutes are presented of the special conference called by the Commission on Machine Construction Technology (Nov 21 - 22 1954), at which the problems of high productive metal cutting processes were debated. The names of known Soviet metallurgists (specialists on metal cutting), who attended the conference are listed. Institution: Academy of Sciences, USSR, Institute of Machine Construction Submitted:

MANATYSIN, A.M. USER/ Metallurgy - Conferences Card 1/1 Pub. 128 - 19/25 Authors Karatygin, A. H., Cand. Techn. Sc. Title Lecture on the theory of high-productive metal cutting and conference on the introduction into industry of the ceramic cutting tool Periodical : Vest. mash. 35/4, 82-84, Apr 1955 Abstract Minutes are presented from the conferences held in November 1954 by the Commission of Machine Construction Technology at the Acad. of Sc., USSR where problems of high productive metal cutting and the introduction of a ceramic cutting tool into industry were debated. Institution : Submitted

PAVIOV, Lavrentiy Yerofeyevich: KARAMYGIN, A.K., kandidat tekhnicheskikh nauk, nauchnyy redsktor; KONTSEVAYA, E.M., redsktor; KUZ'MIN, D.G.,

[Modern devices for inspecting cutting tools] Sovremennye pribory dlia kontrolia rezhushchego instrumenta. Hoskva. Vses. uchebno-pedagog. isd-vo Trudrezervizdat, 1956. 77 p. (MLRA 10:2)

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KARATYGIN, A.M., kand.tekhn.nauk, dotsent; KOZLOV, D.N., kand.tekhn.nauk,

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LARIONOV, A.N.; KARATYGIN, A.M.; PETROV, I.I.; MORCZOV, D.P.; BARSUKOV, S.G.;
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Candidate of engineering, Docent K.V. Urnov. Elektrichestvo no.2:
95 F 158.

(Urnov, Konstantin Vasil'evich, 1907-)

KARATYGIN A.M.

ISAYEV, Pavel Petrovich, dotsent, kand.tekhn.nauk; BOGDANOV, Aleksey
Aleksandrovich, inzh.. Prinimal uchastiye MARTYSHKIN, A.Ye., kand.
tekhn.nauk. KARATYGIN. A.M., dotsent, kand.tekhn.nauk, retsenzent;
ROZENBLIT, Ya.M., inzh., red.; TUBYANSKAYA, F.G., izd.red.; ORESHKINA, V.I., tekhn.red.

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Using diamonds in grinding and lapping hard-alloy parts. Vest.

mash. 41 no.11:58-63 N '61.

(Grinding and polishing)

(Diamonds, Industrial)

KARATYGIN, A.M., kand.tekhn.nauk; KORSHUNOV, B.S., kand.tekhn.nauk

Diamond machining of cutting tools equipped with hard alloys.

Vest.mashinostr. 42 no.11:47-49 N \*62. (MIRA 15:11)

(Metal-cutting tools) (Grinding and polishing)

KARATYGIN, A.M., kand. tekhn. nauk; KORSHUNOV, B.S., kand. tekhn. nauk; MASLOV, Ye.N., prof., doktor tekhn. nauk, retsenzent; ZAVOZIN, L.F., inzh., red.; IVANOVA, N.A., red.izdva; EL'KIND, V.D., tekhn. red.

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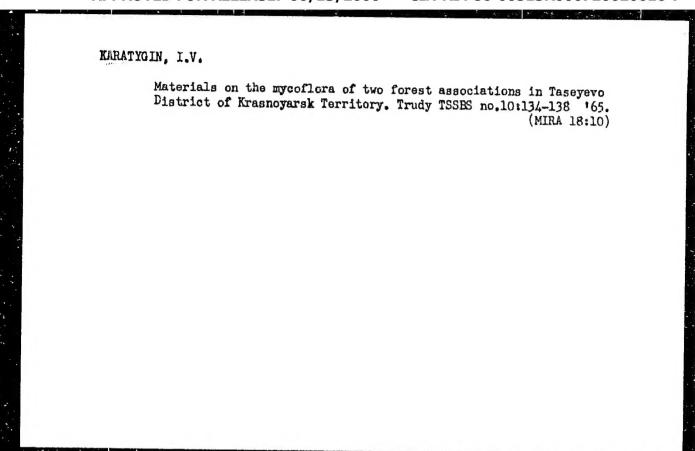
PA 66/49777

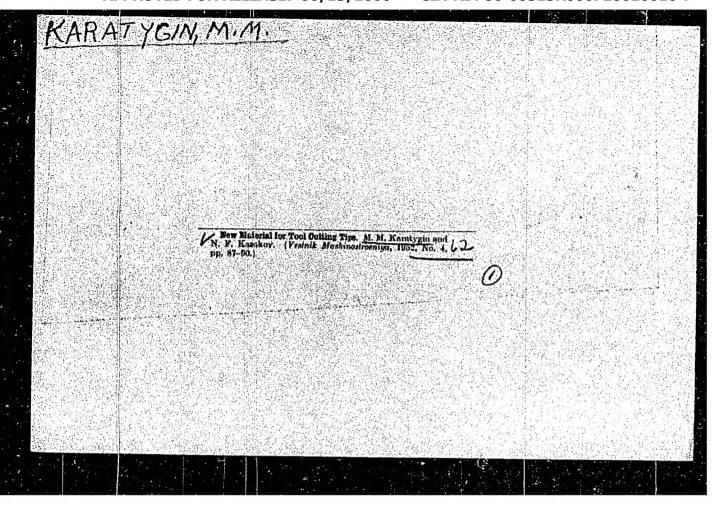
The Treatment of Brucellosis at the 'Sergivevskiy Mineral Waters' Health Resort, A. P. Karatygin, Chief, Brucellosis Div, "Sergivevskiy Mineral Waters" Health Resort, 4 2/3 pp

"Klin Med" Vol XXVII, No 4

Treated inapparent, organic, local symptoms by (1) sumlight, disthermy, and mud, and (2) quartz ionophoresis. Treated other cases with both general and local methods involving the locanotor apparatus and peripheral nerves. Reached no categorical conclusions. Further study is needed.

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9,4340

AUTHORS:

Mamyrin, B. A. and Karatygin, V. A.

TITLE:

Study of reverse conductance effect in junction diodes with a view to its application for new pulse circuits

PERIODICAL:

Card 1/2

Radiotekhnika i elektronika, v. 7, no. 6, 1962,

1014-1018

TEXT: The transition period is divided into two stages: in the first stage ( $\mathcal{T}_1$ ) voltage on the diode is approximately the same as when current was flowing in the forward direction and the diode presents a short-circuit; in the second stage ( $\mathcal{T}_2$ ) current is determined by the diffusion of minority carriers towards the junction and the diode must be treated as a generator of decreasing current; after  $\mathcal{T}_1+\mathcal{T}_2$  diode resistance becomes that determined by static characteristics. A fundamental equation describing the transition period is obtained assuming that maximum diffusion current depends only on the number and distribution of minority carriers and not